

(12) United States Patent

Kauri et al.

(54) POLYMER-COATED OVEN BOARD AND FOOD PACKAGE MADE FROM IT

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(56)**References Cited**

U.S. PATENT DOCUMENTS

6.436.547 B1* 8/2002 Toft et al. 428/474.4 6,534,139 B1 3/2003 Gibbons et al. (Continued)

FOREIGN PATENT DOCUMENTS

1541334 A1 * 6/2005 EP EP 1 640 157 A1 3/2006 (Continued)

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(57)**ABSTRACT**

A polymer-coated oven board includes a coating that contains an oxygen barrier layer of polyamide (PA) and a surface layer of polyethylene terephthalate (PET) adhered to the oxygen barrier layer. These layers are produced onto the board by co-extrusion without a binding agent layer between them. The weight of the PA oxygen barrier layer is 3-15 g/m², and the weight of the PET surface layer is 20-50 g/m². An oxygen impermeable food package heatable in an oven includes the oven board wherein the superimposed polyamide and PET layers are located inside the board layer in the package. The oven board may also include a PET surface layer on the opposite side of the board. Polyamide has been selected so that it withstands heat sealing and the heating of the package in an oven.

6 Claims, 1 Drawing Sheet

